

AC 4672
Kincardineshire

Secondary Education Committee.

MEDICAL INSPECTION OF
- - SCHOOLS - -

REPORT

for the year ending 31st July, 1915.



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- - - SCHOOLS - - -

REPORT
for the year ending 31st July, 1915.

SCHOOL STAFF.

W. A. MACNAUGHTON, M.D., D.P.H.

ROBERT KING, M.D., D.P.H.

COUNTY OF KINCARDINE.

COUNTY BUILDINGS,
STONEHAVEN, July 31st. 1913.

To the Secondary Education Committee
of Kincardineshire.

I herewith beg to submit the REPORT
prepared by DR. R. KING of the work done by him
in connection with the medical inspection of school
children within this County for the year ending
31st July, 1913.

Your obedient Servant.

W. A. MACNAUGHTON.

I BEG to submit my report on the work done during the school year ending 31st July, 1913.

The work has been carried out along the lines already well known to the Committee, and there does not appear to be any need of an elaborate description of "Methods of Procedure," which may be useful in swelling the size of the report, but adds nothing material to its value. Suffice it to say that the Inspector's visit is duly notified beforehand to the Headmaster, and a list prepared of the pupils who should come up for examination. In former reports the absence of parents was favourably commented upon in so far as it enabled the Inspector to get more quickly over his work, but further experience goes to show that the presence of the parents would be desirable, especially when information is sought as to the previous illnesses from which a child may have suffered, and the family history. The latter is of supreme importance in view of the widespread interest now being taken in the detection, prevention, and treatment of Tuberculosis. Time and again it has happened that a teacher has been the first to give a hint that some particular child had lost a father or a mother or some other near relative from "Consumption." The value of such a hint to the Medical Inspector is very great, and being forewarned, he can pay special attention to the condition of the lungs, and the general physique of the child, and recommend what measures may seem called for in each particular instance. In this connection it may be remarked that the work of Medical Inspectors should be greatly aided by that of Tuberculosis Officers when these officials have been appointed and have become cognisant of the tuberculous cases in any particular area. By mutual arrangement information could be handed on from one official to the other and the hands of each strengthened in the fight against the common enemy.

Attention may be directed to the section of this report dealing with the Teeth, where some details are given as to the distribution of dental caries in the children examined during the year.

Lastly I have again to express my thanks, and to acknowledge my indebtedness, to the Headmasters and Teachers throughout the County for ready help and assistance in my periodic visits to the schools.

Number of Children Examined.

			Boys.	Girls.
Age 5	...	...	189	163
7	...	...	336	318
10	...	...	314	294
13	...	...	185	194
Other ages	...	...	99	71
			<hr/> 1123	<hr/> 1040
		Boys	1123	
		Girls	1040	
			<hr/> 2163	

Number Entering and Leaving School.

			Boys.	Girls.	Total.
Entering for first time	...		304	309	613
Entering from other schools			280	249	529
Leaving school	...	...	459	441	900

Classification of Defects.

	Boys.	Girls.
Nutrition—Defective	5	3
Clothing— „	47	25
„ „ and very dirty	6	
Footgear „	15	9
Skin—Dirty	14	7
Ichthyosis	1	2
Impetigo Contagiosa	2	
Scars (from burns)	1	2
Head—Nits	45	187
Teeth—See special paragraph.		
Enlarged Glands—Tonsils	75	63
Adenoids	2	7
Submax. Glands	64	79
Thyroid		1
External Eye Diseases—Blepharitis	50	54
Corneal Opacities	5	
Conical Cornea	1	
Nystagmus		1
Stye		2
Cataract		2
Phlyctenular }		1
Conjunctivitis }		
Tarsal Cyst		1
Squint	24	23
Defective Vision—Both Eyes	16	31
Right Eye	9	21
Left Eye	19	21
High Myopia	1	
Ears—Discharging	2	
Hearing—Defective	2	1
Defective Speech	6	5
Mentally Defective	2	1
Heart—Valvular Lesions	11	8
Nervous System—Infantile Paralysis		
Arm	1	1
Leg	2	
Hemiplegia		1
Tuberculosis—Lungs	3	4
Bone	3	1
Deformities—Hands		2
Spina Bifida	1	
Cleft Palate and Hare Lip	1	
Anæmia	4	5
Albinism	1	
Fits	1	
Rickets	6	
Infectious Disease—Chickenpox ...	1	

A glance at the table will show that in this county as in almost every other part of Great Britain the chief causes of defect are :—nits in the hair, enlarged tonsils and other glands, squint, defective vision, external inflammatory conditions of the eye, and dental caries.

General Review of Conditions found on Medical Inspection.

Height and weight taken together with the age are regarded as giving satisfactory evidence of the hygienic and dietetic conditions under which any given school population has been reared. The close connection between height, weight, hygiene, and diet, may not be very apparent in rural districts, but in large towns and cities the connection is very striking and impressive. In some of these towns the school population has been divided into three classes—higher, middle, lower,—according to the social status of the children, and the results obtained for each group compared. The differences are remarkable and worthy of careful study. Taking Govan as an illustration we find the results as follows :—

		Height (ins.).				Weight (lbs.).			
		5	7	10	13	5	7	10	13
Boys	Group I.	43.2	45.4	51.6	54.9	43.4	47.6	63.7	77.8
	„ II.	41.4	44.5	52.0	55.6	41.3	46.6	62.5	72.8
	„ III.	40.3	42.9	50.2	53.6	39.6	43.8	60.4	71.2
Girls	Group I.	41.8	45.5	50.9	57.0	41.0	45.4	60.6	78.1
	„ II.	41.4	44.3	50.7	54.9	39.9	44.9	58.7	72.4
	„ III.	40.1	42.7	50.2	54.0	38.2	42.6	58.4	72.7

The results in Kincardineshire are the following :—

Height (in inches).				
Boys.				
Age period	5	7	10	13
Kincardineshire	42.0	46.8	52.3	58.1
Standard	41.0	46.0	51.8	56.9
Girls.				
Age period	5	7	10	13
Kincardineshire	41.8	45.6	50.8	57.9
Standard	40.8	44.5	51.5	57.8

Weight (in lbs.).

Boys.

Age period	5	7	10	13
Kincardineshire	42.1	49.5	66.7	88.7
Standard	39.9	49.7	67.5	82.6

Girls.

Age period	5	7	10	13
Kincardineshire	40.4	49.0	62.4	89.3
Standard	39.6	46.7	62.0	87.0

These tables show that on the whole the boys and girls of this county are either close to or over the standard figures in both height and weight, at the various ages examined, and correspond closely to the children in class I. as given in the above illustration from a large populous centre.

Nutrition.

From what has been said above regarding height and weight it follows that there cannot be any great prevalence of cases of underfeeding among school children in the county. This conclusion is confirmed by the actual numbers discovered in the course of examination. 5 boys and 3 girls are noted as being underfed. Of course it may be asked what is to be the standard of comparison and it may further be remarked that the higher the standard the larger will be the number of children falling short. This latter is true enough, but experience soon gives the Medical Inspector a knowledge of the general run of children in any particular district, and with this knowledge in the background of his mind he can form a fair conclusion respecting most of the children he examines. The standard is in a sense subjective and not objective, and is a compound of different factors none of which taken by itself would be sufficient to warrant a conclusion.

Clothing and Footwear.

Clothing defective—Boys 47. Girls 25.

Footwear defective—Boys 15. Girls 9.

In regard to clothing much the same complaint has to be made as in former years. A general insufficiency of warm under-clothing in the colder months of the year is the most outstanding fact to be noted. In addition there are children whose clothing is not so much insufficient as in a lamentable state of disrepair, and whose coverings are too often held together with pins and needles instead of buttons or hooks. In a very few children the clothing was not so much defective as it was filthy and evil-smelling and badly in need of a good washing with soap and water, and, in one or two cases, of a thorough sterilizing to get rid of living vermin. Boots and shoes, in the vast majority of the children, are strong and substantial structures, rather too heavy perhaps in the case of the younger children, but in the main well adapted for the end in view. In the 34 children noted above the boots or shoes were so far from fulfilling their purpose of keeping the feet warm and dry that, in the opinion of the Medical Inspector, less damage to health would be caused in wet weather by going barefooted altogether, than by wearing a sort of apology for a boot and sitting in school all day with wet stockings and cold feet.

Skin.

A number of skin troubles are set down in the Table none of them of any great importance. Ringworm and Scabies are not mentioned, not because these forms of skin disease are not met with, but because the teachers are for the most part fully cognisant of the symptoms and appearances of these diseases, and the children are promptly excluded from school. In some cases headmasters send suspected children to the school doctor for examination. If inspection shows the presence of infectious skin disease, the children are likewise excluded from attendance at their respective classes.

Some children are found in such a condition of body as to suggest that soap and water are scarce commodities in certain homes or that the children have a great aversion to their use.

In many of the larger towns and cities school baths of various kinds have been introduced and are regularly used by the children.

Nits in the Hair.

Boys 45. Girls 187. This condition is still far too common and its greater frequency in girls is clearly to be attributed to the fashion of allowing girls to wear the hair long. While the condition is undoubtedly more common in children from poorer homes it is not exclusively confined to these. It should be remembered however that the presence of one child with this condition in any class may be the means of infecting others, and when once a child has been infected it is an extremely difficult matter to get the head clean again. As mentioned before, living vermin can very easily be destroyed but it requires patience and perseverance on the part of both parent and child to get rid of nits. With a view to find out if any easy way to accomplish this very desirable end had been discovered, a prominent authority on skin diseases was communicated with. In his reply he mentioned that many similar letters had been received from School Medical Inspectors, and he then proceeded to give details of the method which he had found most effectual. The method is identical with that printed on the card sent to the parents of children so affected, a copy of which was incorporated in last year's report. The number of children discovered this year is slightly smaller than last year, and the plan of sending a notice direct to the homes from which the affected children come will be continued during the ensuing school year. In this way it is hoped that all parents will get to know the best way to deal with this particular evil, and that ultimately the condition will be banished from the county.

Teeth.

Reports from all parts of the country direct attention to the great prevalence of dental disease in the children attending all public schools. Various classifications of the defects are adopted—none perhaps wholly satisfactory. Where school dentists are appointed a full record of the defects present in each child will doubtless be kept, but in the ordinary routine of medical inspection such elaborate minuteness is quite out of the question and is indeed not called for. In this county during the past school year

a compromise has been attempted, and in the following table an effort has been made to give an accurate idea of the distribution of dental disease in the school children examined during the year. It should be pointed out that a more thorough examination of the teeth with the aid of the dental mirror and probe would result in a much smaller number of good teeth being found than is given in the table, but, so far as they go, and without other aid than ordinary inspection, it is believed that the results recorded are substantially correct.

					Boys.	Girls.
Number examined					1123	1040
					-----	-----
Sound teeth					402	348
1	Decayed	...	...	...	129	139
2	"	...	...	...	217	186
3	"	...	...	...	129	122
4	"	...	...	...	94	124
5	"	...	...	...	58	50
6	"	...	...	...	46	33
7	"	...	...	...	20	22
8	"	...	...	...	15	11
9	"	...	...	...	5	3
10	"	...	...	...	8	2

A number of children have been grouped according to age and the incidence of dental disease at each of the ages examined is shown below.

				Boys.									
Age.	No. Examined.	Good Teeth.		Carious Teeth.									
				1	2	3	4	5	6	7	8	9	10
5	69	43		5	8	2	2	2	2	2	1	0	2
7	106	49		13	10	5	11	6	8	2	1	0	1
10	103	34		13	19	16	9	7	3	1	1	0	0
13	55	20		7	16	5	4	1	1	0	0	1	0

				Girls.									
5	63	28		5	10	5	11	2	2				
7	108	31		13	16	9	16	10	8	2	1	1	1
10	102	28		22	18	14	11	7	2				
13	68	20		10	21	8	3	3	3				

If attention is directed to the sound teeth at each age period, the results may be summarised as follows.

At age 5,	62 per cent.	of boys	and 44 per cent.	of girls	have sound
„ 7,	46	„	„	28	„ „ „[dentition
„ 10,	33	„	„	27	„ „ „
„ 13,	36	„	„	30	„ „ „

The girls at each age are in a less favourable position as regards the teeth than the boys and while it might be interesting to speculate as to why this should be so, probably the broad fact that girls spend more time indoors and get more in the way of “extras” than most boys is quite a sufficient explanation.

Another noteworthy fact is that the poorer the children are, the better are the teeth, and speaking generally the best mouths, dentally considered, are to be found in country districts where luxuries are few and good wholesome food, requiring efficient mastication, the usual dietary.

In Kincardineshire few parents have anything done in the way of conservative treatment for dental decay either of the temporary or of the permanent teeth. The common practice is of course to allow the decayed tooth to remain until it causes trouble in the way of toothache or gumboils and then to have it extracted. Modern opinion condemns decayed teeth as a prolific source of many constitutional maladies, some of them of the gravest possible character, but apart from these serious disturbances, such teeth cause an almost incalculable amount of suffering in the way of pain, sleepless nights, inability to masticate food properly and a general lowering of the physical stamina and power of resistance.

How best to provide the requisite treatment is a difficult matter to settle—more difficult in rural than in urban areas. In some places—Aberdeen City for example—the School Board has utilized its portion of the treatment grant by employing a dentist to attend to the dental requirements of certain children, and this plan, it is understood, is to be continued. In places where a school clinic has been established, dental treatment is frequently undertaken, and in other places fully equipped dental clinics are doing excellent work. In an area like Kincardineshire probably the only satisfactory plan would be to appoint a dentist who would visit different centres and undertake the treatment of the teeth of such children as appeared to be most suitable and most likely to

benefit by the expense incurred. One serious difficulty in connection with the grant for treatment set aside by the Treasury may here be commented on. Each school board must apply for a share of the grant and must submit a scheme of treatment to be approved by the Education Department. This is a comparatively simple matter for large school boards, but in the case of small rural boards, with perhaps only one or two small schools to look after, a scheme of treatment is not so easily formulated. Attention was directed to this aspect of the question at the conference of School Medical Officers held in Edinburgh last May. The Medical Officer of the Department suggested that rural boards should delegate their power of treatment to Secondary Education Committees, and gave it as his opinion that the Department would be unlikely to offer any objection to their doing so. This would simplify matters considerably, and it would then be the duty of these Committees to formulate schemes of treatment, apply for grants, and attend to their judicious expenditure.

Enlarged Glands.

The glands found enlarged were chiefly the Tonsils and the glands in the neck; a smaller number of children showing the presence of enlarged Adenoid glands, and one only presenting enlargement of the Thyroid gland.

The Tonsils and neck glands are those most commonly found enlarged in children, and the cause of this enlargement is undoubtedly the active condition of all glandular tissues in young persons. The glands are the first line of defence against the entrance of various kinds of micro-organisms into the body, and it is not at all surprising to find that a large number of children have a greater or less degree of glandular enlargement. It is also interesting to note how this enlargement becomes less frequent as the child grows older, which means that the body tissues are becoming more stable and less easily influenced by minor occurrences.

Enlarged glands may call for removal in certain cases:—

- (a) *Tonsils*.—When chronically enlarged removal is demanded, as there is little tendency for these glands to subside

naturally. The operation, as a rule, is simple and the resulting benefit most marked.

(b) *Neck Glands*.—With the removal of any source of irritation such as septic and carious teeth there is a greater tendency for these glands to subside. In some cases tuberculous infection of the glands is superadded, and then the glands slowly enlarge, becoming in time little more than bags of pus which may rupture and discharge slowly, finally leaving rather unsightly puckered scars, or they may be dealt with surgically leaving an inconspicuous linear cicatrix. The latter method is best and quite a number of children are to be found throughout the county whose neck glands have thus been dealt with. Commonly one gland becomes enlarged and softened at a time, and when it has been dealt with no further trouble arises, but in some cases there may be a succession of affected glands, each requiring active treatment, with the ultimate result that the child's neck may show extensive scarring on one or both sides.

(c) *Adenoid Growths*.—These growths occur in the region behind the soft palate and upper part of the pharynx and are simply an hypertrophy of the tissue normally present in that place. It is only when the enlargement causes mechanical "blockage" to nasal breathing that removal is called for. The child thus affected presents what has been called the "Adenoid facies"—an open mouth, pinched nostrils, dusky colour, some deafness, tendency to chronic catarrhs, and certain changes in the framework of the chest which may remain permanent throughout life.

These growths are frequently found in association with enlarged Tonsils and both may have to be removed. When so removed the results are generally excellent.

The Thyroid gland is not often found enlarged in young people in this country. Abroad enlargement is more common. In the case found the girl was advised to consult a doctor.

External Eye Diseases.

The table on page 5 shows that a variety of different conditions is met with but that the chief condition causing trouble is Blepharitis. 50 boys and 54 girls were found to be thus affected. The condition is characterised by redness of the margins of the eyelids, more or less discharge which often glues the eyelids together in the morning, and forms crusts about the eyelashes. The latter frequently fall out and in bad cases not a single eyelash is left. The condition is not difficult to cure in most cases, and it is disappointing to find that year after year the same child or group of children present themselves with the eye trouble as bad as ever, and only a spasmodic effort being made at intervals to have the condition rectified. In every case directions have been given as to suitable treatment and were the directions followed a week or ten days would see most cases completely cured. The great desiderata are cleanliness and perseverance. It may here be mentioned that this is just the kind of condition for which the services of a nurse would be invaluable. She could hardly be expected to visit widely scattered homes but might make use of the school as a treatment centre, and attend to this and such other conditions as might be brought to her notice. Something of this kind will require to be done if such troubles as the above are to be reduced to a minimum or completely eliminated from the county.

The cause of the trouble is sometimes a visual defect in the eye itself. Certain children are found in whom, however, there is apparently a delicacy of structure so that from time to time they have attacks of the trouble, but most commonly the condition is found in "dirty" children—children with unwashed hands and faces, badly clothed, or living in small, badly lighted, and badly ventilated homes.

5 boys were found suffering from corneal opacities. These are scars on the surface of the eyeball resulting usually from a previous ulceration. The tissue destroyed is replaced by a scar which may be dense, whitish in colour and easily seen, or may be very thin and inconspicuous. The condition is permanent, treatment useless, and the degree of interference with vision depends

on the situation and extent of the scar. The other eye conditions noted in the table call for no special mention.

Squint.

Boys 24, Girls 23. In every case the squinting eye turned inwards towards the nose. The kind of squint met with in children is usually non-paralytic and associated with a greater or less degree of refractive error. When the eye turns inward "hypermetropia" or long sight is generally the error present and presumably that was the condition of vision in each of the 47 cases of squint met with during the year.

Apart from the disfigurement caused by "squinting" there is the more important fact that the squinting eye tends to become more and more useless for the purpose of seeing, unless measures are taken to prevent this result. The only way to do this is to equalise the visual power of the two eyes by the use of suitable glasses. If the visual error is slight and for any reason it is desired to avoid the use of glasses (such as the age of the child) an attempt is sometimes made to prevent deterioration in the squinting eye by occluding the sound eye from use by a bandage or other contrivance for a certain time each day. In this way the weaker eye is forced to do work. Another important point is that the use of suitable correcting glasses tends to prevent the squint, and hence it may be laid down as an axiom that every child of school age who squints should be wearing suitable glasses. This is what the Medical Inspector has tried to insist on, but it is only in a relatively small number of cases that he has been successful. Sometimes the parents object and sometimes the children, but it cannot be too widely known that with a view to correct a squint and to prevent visual deterioration the long continued use of suitable glasses is imperative.

Defective Vision.

Particulars are given in the table as to the distribution of visual errors according as the right or left eye, or both eyes were affected. It will be noticed that 118 children were found with

visual errors. The girls, as in previous years, are found to suffer more than the boys, the numbers being 45 boys and 73 girls.

“Long sight” or Hypermetropia was the common condition present. In a few cases “Short sight” or Myopia was found. The latter condition is more serious than the former and as one writer remarks, hypermetropia is an interesting condition, usually congenital and due to arrested development, while myopia is a disease, usually acquired, and may be looked upon as an effort of nature to adapt the eye to near objects, as a result of civilization and its incessant demands on near vision. It is peculiar to the human race, much more frequent in the civilized than in the uncivilized, and more common in towns than in the country. It may be of varying degrees of severity. Its correction is of the utmost importance, and as a preventive measure the use of the eyes for near work in young children should be discouraged. For this reason much of the work given to the young, especially to girls, such as fine sewing and the filling in with thread or wool of the outline of an animal or flower on a perforated card should be abolished.

Discharging Ears.

This condition, due to disease of the middle ear, is not common, only two cases being met with during the year. The condition is serious and in each of the cases the ears were being properly attended to at home.

Speech Defects.

11 children—6 boys and 5 girls were found to be suffering from some defect of speech. Stammering was most common, but lisping and “baby talking” were found in two or three instances. Suitable directions were given to the teachers (with whom chiefly lies the power of insuring a correct pronunciation) as to how they could best aid the sufferers over their difficulties.

Mental Defects.

2 boys and 1 girl were found so defective mentally as to be quite unfit for an ordinary elementary school. Such children do best in a special school. Two other children were examined at their homes by request of one school board. In both cases the children were so mentally defective as to be unable to attend an ordinary school—one case was certified as likely to benefit by instruction in a special school, while the other was so hopelessly imbecile as to be unable to profit by any instruction.

Heart.

11 boys and 8 girls presented some degree of heart affection. In some the condition was slight and ill defined, while in others it was very apparent. All the children are under observation and will be examined from time to time as opportunity offers.

Nervous System.

Fortunately few cases of serious derangement of this system are met with—the chief defect being some variety of Infantile Paralysis. One boy and one girl had paralysis of one arm, while two boys had paralysis of a leg, and one girl had paralysis of arm and leg together. This form of paralysis generally comes on suddenly when the child is apparently in good health, and epidemics of the disease have occurred from time to time both in Britain and America. The paralysis is at first often very extensive, but recovery of power largely takes place, and the ultimate result is that a selected group of muscles in the arm or in the leg is permanently paralysed, the muscles wasting and the limb as a whole becoming smaller than its neighbour and frequently ceasing to grow altogether. Treatment hitherto has been for all practical purposes useless, though within recent years attempts have been made to deal surgically with the paralysis. Success has been attained in some cases but the general results are disappointing.

Tuberculosis.

Tuberculosis in childhood is a subject on which much has been written in recent years, but it is only very slowly that the vast importance of the subject is being realised. It is questionable if the general public have any adequate conception of the

extent to which child life is under the power of this disease. For long it was held that Tuberculosis, or to give it the popular name by which it was and is known when affecting the lungs, Phthisis or Consumption, was essentially a disease of early manhood and womanhood, coming down with a fell swoop and claiming toll from the fairest and most promising of the country's adolescents. This conception has now given place to another, which regards these manifestations of disease in early adult life as being, in greater part at all events, simply the harvest of the seed sown in childhood. Childhood is thus the susceptible age and the study and detection of the earliest manifestations of the disease in the child becomes a matter of supreme importance.

Evidence of child infection is derived from two sources :—

1. Clinical Evidence.
2. Pathological Evidence.

1. The clinical evidence is strong. Even with tuberculous parents a child is very seldom born with the disease, and infection during the first six months of life is relatively infrequent. From then onwards the frequency of tuberculosis steadily increases. Numerous observers in different parts of the world have made use of the various tuberculin tests, and all are unanimous in their contentions that most children by the time they reach 15 years of age show evidence of infection.

2. Pathological evidence is also confirmatory. The following results of post mortem examinations of 335 children, made in Vienna, may be taken as a sample.

1st year—15 per cent. showed tuberculous infection.				
2nd	„	40	„	„
3rd to 4th	„	60	„	„
5th to 6th	„	56	„	„
7th to 10th	„	63	„	„
11th to 14th	„	70	„	„

Now with all this evidence of *infection* in childhood, what are the results found by School Medical Officers in their visits to the Schools under their charge? These results are slightly different from what might have been expected. In Kincardineshire no case of Tuberculosis of the Lung was discovered in school. One case, that of a boy about 13, was regarded as suspicious

from the fact that he had recently undergone an operation, rather extensive, for the removal of enlarged glands on both sides of the neck, but at the time of the school visit his lungs showed no evidence of a lesion. Later on he was notified as a case of Consumption and has since died. Six other children have been found suffering from the disease, viz. :—2 boys and 4 girls all of school age. 3 of the girls (2 being sisters) have recently died.

Tuberculosis of bone was found in 4 cases, 3 boys and 1 girl.

The results from other parts of the country are equally interesting as the few given here will show.

In Aberdeenshire there were 24 cases of Phthisis in 6,473 children examined.

In Glasgow there were 25 cases of Phthisis in 14,869 children¹¹ examined.

In Dundee 4 cases of Phthisis ; in Edinburgh 8 cases, and 25 suspicious cases ; in Forfarshire 3 cases ; in Perthshire 6 cases of "Tuberculosis."

A few results from England may also be given for comparison.

	Children Examined.	Cases of Phthisis.
Hertfordshire ...	14,452	2
Staffordshire ...	19,948	13
Worcestershire ...	9,870	467
Gloucestershire ...	8,915	0
Birmingham ...	21,493	54
Bristol ...	15,363	16
Nottingham ...	7,738	1
Plymouth ...	4,823	7

These results go to show that however much "infection" with Tuberculosis may be present in children of school age, the "disease" does not show itself in a form that can be diagnosed with certainty. Routine examination at school is necessarily conducted in the midst of some inevitable bustle and noise, and the quietness requisite alike for examiner and examined is difficult to secure. It must be obvious therefore that it is almost impossible to appreciate the more delicate alterations of the breath sounds,

upon which reliance is chiefly placed in making a diagnosis of the disease. Here again it is hoped that assistance will be derived from the Tuberculosis Officer, who, by visiting in the homes of notified consumptives, and by the examination and testing of the various members of the household, will be able to give valuable information as to school children who come from areas of infection and who may need special care and attention. In this connection attention may be drawn to the great value of conducting classes in the open air. The open air school is quite an important feature in some Sanatoriums, and no one who has seen the bronzed faces of the children can doubt its hygienic value, while in the hands of efficient teachers there should be no falling off educationally. Some of the larger School Boards have established special open air schools to which children are drafted from other schools as required, but in an agricultural area like Kincardineshire practically every school may be made an open air school to the great advantage alike of teachers and pupils.

A few deformities of various kinds are mentioned in the classified table of defects, deformity of the hands being present in two girls, spina bifida in one boy, and cleft palate with hare lip also in a boy. Rickets occurs, as usual, chiefly in Glasgow children boarded out in the County, that is to say the children show the results of the disease in the various characteristic deformities of the bony framework of the body, such as bent legs, thickened wrists, deformed chest wall, flattened skull and so on. With the hardy open air life to which most of these children become accustomed, great physical improvement results in many cases, though it is often saddening to see the stigmata of early neglect still apparent, and to realize that with all our boasted civilization and advance a disease, largely preventable, should still be so rampant in our midst.

The other conditions mentioned call for no special remark.

Treatment.

No scheme of treatment is in operation in the County, no arrangement for treatment has been made with any general practitioners, and only one School Board made an application for a

grant for treatment from the sum allocated by the Treasury. The difficulties of small school boards with regard to these grants have already been referred to in another part of this report.

The attention of parents has been directed chiefly to unclean conditions, and to children whose eyesight required attention. Advice regarding other conditions was freely given where necessary. During the year 88 notices were sent to parents drawing attention to the visual condition of the children and pointing out the necessity for skilled advice and treatment. In many cases the children were taken to doctors or eye specialists and suitable glasses obtained, but there are many parents who refuse to have anything done, and in some cases the children themselves object to wear spectacles. There are in addition several children whose parents pleaded poverty as a reason for not taking the children to have their eyesight examined, and as these children are undoubtedly in need of some proper aid to vision the question of having such children examined and provided with glasses free of cost remains to be considered.

It is interesting to observe that since medical inspection was begun in Kincardineshire 467 notices have been sent to parents relating chiefly to defects of vision and that 324 replies have been received from doctors to the effect that the children concerned have been seen by them and that the condition notified "is being attended to."

Notices were also sent to the parents or guardians of all children who suffered from verminous conditions of the head or body. The effect of these notices has been very good, and teachers generally have expressed their satisfaction at the cleaner condition of the children, and their appreciation of the tidier way in which they are dressed for school. It is intended to continue these notices during the ensuing school year.

Mention has been made of the large number of children who suffer from "Blepharitis." As this is a condition for which a doctor is rarely if ever consulted, it is proposed to prepare a notice giving simple directions for treatment, and to send a copy of such notice to the guardians of every child found to be affected by the

disease. It is hoped that by this means children who appear year after year suffering from this complaint will be helped to get rid of a condition always unsightly, and sometimes permanently disfiguring.

School Closure.

Owing to the unusual prevalence of various forms of epidemic infectious disease during the year, it was found necessary to close the undernoted schools for the diseases named and the number of days mentioned :—

School.			Disease.			No of Days.	
Tewel	...	...	Diphtheria	...	...	...	14
Fettercairn	...	...	Whooping Cough	...	...	...	17
Dunnottar	...	...	Measles	...	...	...	14
Muchalls	...	..	Mumps	...	...	...	10
St. James'	...	...	Measles	...	...	...	14
Broadyards, Bervie	...	...	do.	...	...	...	23
Public School, Bervie	...	...	do.	...	...	...	23
Fasque	...	...	Whooping Cough	...	...	...	18
Inch...	...	...	Measles and Whooping Cough	...	...	...	14
Napier	...	...	Whooping Cough	...	...	...	9
Fordoun	...	...	Measles	...	...	...	28
Benholm	...	...	do.	...	...	...	14
Gourdon	...	...	do.	...	...	...	32
Maryculter East	...	...	Scarlet Fever	...	...	..	15
Barras	...	...	Measles	...	...	..	14
Fasque	...	...	Mumps	...	...	...	14
Raemoir	...	...	Diphtheria	...	...	...	11
Catterline	...	...	German Measles	...	...	...	14

Employment before and after School Hours.

In the towns a number of young boys and girls are employed before and after school in such work as delivering papers and going with milk. Older boys also do some work on Saturdays for grocers, butchers and others. Usually the morning work begins at seven o'clock and is finished in time for school, and in the evening the hours are generally 6 to 8. No harm appears to result to the children and from inquiries made it is found that due

attention is given to the matter of sufficient sleep. Doubtless it is undesirable on general grounds that children of seven, eight, or nine years of age should be thus employed but there is frequently an economic necessity which cannot lightly be disregarded.

In the country the work consists more in helping on the farm or croft, attending to cattle, and making oneself generally useful. This kind of work is more laborious and many of the pupils so engaged come to school apparently dull and apathetic and not fit to profit by the education provided. One schoolmaster in a rural area very kindly made inquiries at a number of the children and his results may be taken as typical of what obtains in the farming parts of the county.

It was found that home employment became more common after ten years of age.

Boy No. 1 up at 7 a.m., working, listless in class.

„ 2 „ 6 „ „ backward but not dull.

„ 3 „ 5 „ „

„ 4 „ 5.30 a.m., „

„ 5 „ 6 „ but not working.

Against these, in some cases, early hours of rising must be put the fact that early to bed is also the rule, and from what appears in other parts of this report there does not seem to be any evidence that early rising and a certain amount of work before and after school has any deleterious physical effect. There may be some mental effect, but this same headmaster recognises that the backwardness of many country children, especially cottar children, is due, in great measure, to the constant migration from district to district which characterises so many farm servants now a days. Inquiries made in this same school about three years ago revealed the fact that every pupil in the senior room had lived on an average in five different places, and in another school one pupil was met with who had been in nine different schools in nine years. This same migration of pupils from school to school with the parents changing locale of work is common to most of the rural areas of the county, and is a cause of heartbreak to most schoolmasters and always means a set back to the pupil's educational advance.

School Hygiene.

In last year's report the hygienic condition of the schools was commented on at some length and, as there has not been any great alteration in school premises during the year, a brief report on each school is all that is here given. An exception must be made in the case of two schools that have undergone very extensive alterations and improvement, viz., Banchory Higher Grade School and Laurencekirk Public School. Banchory School has been remodelled and extended and brought up to date in almost every particular ; new and spacious class rooms have been added, and the school is now one of the best in the county. The only objection that might be taken to the alterations is that the central hall is too long and narrow, indeed modern opinion is inclined to condemn the central hall type of school altogether, but difficulties are frequently met with in remodelling old buildings that make the attainment of the ideal not always practicable, and the best possible under the circumstances has been carried out.

Laurencekirk School has also been altered considerably : lighting has been improved, new cloak rooms and wash-hand basins added, and improved dual desks provided. The most notable addition is the new building of large size erected at the rear of the school. This building is fully equipped for laundry work, woodwork, and cookery, and is also used during the winter months as a soup kitchen, ample sitting accommodation being provided for the children.

A brief note is appended regarding the other schools.

ARBUTHNOTT.—Old long desks not yet replaced by modern dual desks. Two rooms have had walls and ceilings enamelled since last visit to school. Lighting defective in two class rooms. Infant room too large to be satisfactorily heated by one fireplace. Offices in fair order.

BANCHORY.—This school has undergone a complete transformation during the past year. Many new class rooms have been added and the lighting in each room is very good. A central hall for physical exercises has been provided also retiring rooms for headmaster and teachers. The new cloak rooms are efficiently warmed and a special feature is a separate cloak room for the younger children. Throughout the whole school open fires have been abolished and hot water heating substituted. Abundant provision has been made for the entrance of fresh air to the class rooms but exit openings appear few in number and small in size.

- BANCHORY-DEVENICK.—School in good condition. In one class room the heating stove has been abolished and the open fire proves much more satisfactory. Offices in good order.
- BARRAS.—Old long desks in senior room should be abolished. Offices satisfactory.
- BEXHOLM.—School very clean, well lighted and well ventilated. Offices in good order.
- BERVIE (Infant).—School in good order. The lighting is insufficient in one class room. A sink and cooking stove have been installed since last visit. The offices are in good order being now provided with automatic flushing apparatus and separate places for boys and girls.
- BERVIE (Senior).—School very clean and well lit. One class room has been transformed into a room for manual work. There is one teacher less than last year. The offices are in good order and the water supply is abundant.
- BRAE OF GLENBERVIE.—School has been repainted. Old long desks still in existence. Shelter Shed requires repair. Offices satisfactory.
- BRACKMUIRHILL.—School well kept but lighting in one room defective. Offices primitive but in good order.
- CAIRNHILL.—School in fair condition. Stoves used for heating in each class room. School wall for about 12 yards blown down. Offices unsatisfactory.
- CATTERLINE.—School very clean and lighting good. One room is too large to be sufficiently heated by a single fireplace and on date of visit the thermometer only stood at 50 degrees. Offices satisfactory.
- COCKETTY.—School in good order and offices satisfactory. Dual desks required instead of present long desks.
- COOKNEY.—No water supply at school and water has to be carried from schoolhouse. Walls of class rooms require cleaning. Old long desks are still used in all class rooms and those in infant room are too high for the children. Offices satisfactory.
- COVE.—School very clean and in good order. Lighting excellent. Play ground apt to become flooded in wet weather. Offices satisfactory.
- CRATHES.—School in good order but offices require attention.
- DRUMLITHIE (Glenbervie).—School fairly satisfactory. Short desks should be introduced and walls and ceilings enamelled. Lighting in one room defective. Offices require to be modernised.
- DUNNOTTAR.—School in excellent order and very well kept. Lighting good. Cloak rooms and class rooms all heated by hot pipes. Offices satisfactory.
- DURRIS (Crossroad).—No water in school. Old long desks still present and should be replaced by modern type. Offices fairly satisfactory.
- DURRIS (Woodlands).—Modern desks required. Lighting in senior room not very good. Offices fairly satisfactory.
- FASQUE.—School very clean and satisfactory.
- FETTERCAIRN.—Large new class room added since last year and new provision made for hats and coats. Old long desks still present in two rooms. Water now introduced but no wash-hand basins installed.
- FETTERESSO.—School in excellent order. Heating is by open fires. Offices satisfactory.
- FORDOUN.—School in good order and very well kept. Heating is by hot water circulation and is very satisfactory. Offices in good order.

GARVOCK.—School in good order and offices satisfactory. No shelter shed is provided for boys or girls. A shed for the boys would be a great convenience especially in wet weather. The playground would be greatly improved by a layer of gravel.

GOURDON.—Conveniences for the teaching of cookery have been installed in this school. The floors are still kept in a somewhat dusty condition especially around the benches. There is one teacher less than last year. The offices are in fair order.

INCH.—School in good order but direction of lighting in large class room is not in accordance with modern requirements. A rearrangement of the benches would put this matter right. Offices satisfactory and water supply reported to be greatly improved. Old long benches still present in the larger class room.

INCHMARLO.—School in good order and very well kept. The offices are somewhat neglected looking.

JOHNSHAVEN.—School kept in very good order. Lighting on the whole good. Offices among the best in the County. Observation suggests that probably on the whole automatic is preferable to individual flushing.

KINNEFF.—New dual desks installed since last visit and the sanitary accommodation brought into line with modern requirements. Wash-hand basins and water have been provided in the entrance lobbies.

KIRKHILL (Nigg).—School in good order. Lighting of middle class room not very good. Sanitary accommodation might be improved.

LANDSEND.—School in good order. Old long desks still present in one room.

LAURENCEKIRK (Infant).—This school is in good order and well kept. The offices are not very satisfactory.

LAURENCEKIRK (Episcopal).—School in good order.

LAURENCEKIRK (Public).—This school has been extensively altered during the past year. The lighting has been improved, new desks introduced and special accommodation provided for coats and hats. A large building has been specially erected for cookery, laundry work and woodwork. It is a pity that advantage was not taken to introduce a hot water circulation for heating purposes, the old open fireplaces not being very satisfactory for this purpose.

LUTHERMUIR.—School in good order. Walls and ceilings enamelled and woodwork repainted. Heating somewhat defective. Old long desks still present. Offices fair.

MACKIE ACADEMY.—School in excellent order in all respects and well looked after.

MARYCULTER (East).—School and offices in good order.

MARYCULTER (West).—School and offices in good order.

MARYKIRK.—Dual desks required in senior room. Walls and ceilings should be painted with petrifying enamel. Lighting good. The senior room should be divided by a partition and a fireplace put in. The offices are not satisfactory. A serious defect is lack of sufficient heating in the colder months. The children were found to be shivering and warming themselves in relays at the fire.

MUCHALLS.—School very clean and well lighted. Outside doors require attention to prevent entrance of rain. Offices well kept. Shelter sheds require a concrete floor.

NETHERLEY.—School in good condition generally but warming insufficient and a supplementary source of heat required. At date of visit the thermometer only stood at 55 degrees though a large fire was burning in the grate and the winter sun was shining through the windows. Playground unsatisfactory and flooded after heavy rain. Offices, such as they are, in fair condition.

NAPIER (Marykirk).—School in excellent condition and well kept. Hot water heating recently installed continues to give satisfaction.

PORTLETHEN.—School in good order but old long desks still used in three rooms. Offices in satisfactory condition.

RAEMOIR.—School in good order and offices excellent.

REDMYRE.—School in good order. The outside has been repainted and overhauled. Offices satisfactory.

RICKARTON.—School in good order but dual desks required in senior class room. Playground very dirty and flooded at date of visit and much unnecessary mud carried into the class rooms. A layer of gravel would be an improvement. Offices in fair condition.

ST. CYRUS.—School in good order. Offices primitive.

ST. JAMES' EPISCOPAL.—School well kept and in good order. Two of the class rooms are modern and the other two somewhat antiquated. Offices fairly satisfactory.

STRACHAN.—School in good order and offices satisfactory.

TEWEL.—School in good order and offices satisfactory.

TILQUHILLIE.—School well kept and in good order. The shelter sheds—blown down last year—have again been erected.

